CLAIMS:

- 1. A polytetrafluoroethylene (PTFE) material comprising: aggregations of nodes; and fibrils interconnecting the aggregations.
- 2. The material of claim 1 wherein the nodes are interconnected by fibrils to form the aggregations.
- 3. The material of claim 2 wherein the fibrils interconnecting the aggregations are longer than the fibrils interconnecting the nodes.
- 4. The material of claim 1 wherein the fibrils interconnecting the aggregations have average lengths of about 100 to 1000 microns.
- 5. The material of claim 2 wherein the fibrils interconnecting the aggregations have average lengths of about 100 to 1000 microns.
- 6. The material of claim 3 wherein the fibrils interconnecting the aggregations have average lengths of about 100 to 1000 microns.
- 7. The material of claim 1 wherein the fibrils interconnecting the aggregations have average lengths of about 500 to 1000 microns.
- 8. The material of claim 2 wherein the fibrils interconnecting the aggregations have average lengths of about 500 to 1000 microns.
- 9. The material of claim 3 wherein the fibrils interconnecting the aggregations have average lengths of about 500 to 1000 microns.

- 10. The material of claim 2 wherein the fibrils connecting the nodes have average lengths of about 10 to 30 microns.
- 11. The material of claim 3 wherein the fibrils connecting the nodes have average lengths of about 10 to 30 microns.
- 12. The material of claim 6 wherein the fibrils connecting the nodes have average lengths of about 10 to 30 microns.
- 13. The material of claim 9 wherein the fibrils connecting the nodes have average lengths of about 10 to 30 microns.
- 14. The composite article as recited in claim 1, wherein the aggregations have densities of less than about 2.0 grams per cubic centimeter.
- 15. The composite article as recited in claim 2, wherein the aggregations have densities of less than about 2.0 grams per cubic centimeter.
- 16. The composite article as recited in claim 3, wherein the aggregations have densities of less than about 2.0 grams per cubic centimeter.
- 17. The composite article as recited in claim 1, wherein the nodes have densities of about 2.0 to 2.2 grams per cubic centimeter.
- 18. The composite article as recited in claim 2, wherein the nodes have densities of about 2.0 to 2.2 grams per cubic centimeter.
- 19. The composite article as recited in claim 3, wherein the nodes have densities of about 2.0 to 2.2 grams per cubic centimeter.

- 20. A polytetrafluoroethylene (PTFE) material comprising: aggregations of nodes; short fibrils interconnecting the nodes to form the aggregations; and long fibrils interconnecting the aggregations.
- 21. The material of claim 20 wherein the long fibrils have average lengths of about 100 to 1000 microns.
- 22. The material of claim 20 wherein the long fibrils have average lengths of about 500 to 1000 microns.
- 23. The material of claim 20 wherein the short fibrils have average lengths of about 10 to 30 microns.
- 24. The composite article as recited in claim 20, wherein the aggregations have densities of less than about 2.0 grams per cubic centimeter.
- 25. The composite article as recited in claim 20, wherein the nodes have densities of about 2.0 to 2.2 grams per cubic centimeter.
  - 26. A polytetrafluoroethylene (PTFE) material comprising:
  - aggregations of nodes, the nodes being interconnected by fibrils having average lengths of about 10 to 30 microns;
  - long fibrils having average lengths of about 500 to 1000 microns interconnecting the aggregations;
  - the aggregations having densities of about 2.0 to 2.2 grams per cubic centimeter; and the nodes having average densities of less than about 2.0 grams per cubic centimeter.